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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,526	09/05/2003	Kevin I. Bertness	C382.12-0163	9523
27367	7590	09/22/2005	EXAMINER	
WESTMAN CHAMPLIN & KELLY, P.A. SUITE 1400 - INTERNATIONAL CENTRE 900 SECOND AVENUE SOUTH MINNEAPOLIS, MN 55402-3319			TERESINSKI, JOHN	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,526

Applicant(s)

BERTNESS, KEVIN I.

Examiner

John Teresinski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-24,27-34 and 36-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-24,27-34 and 36-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/5/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-24, 27-34 and 36-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,811,979 to Rhein in view of U.S. Patent No. 6,331,762 to Bertness.

Regarding claims 18 and 36, Rhein discloses a method and device for determining cable resistance including coupling a first Kelvin (Fig. 3, see elements V3, 16) connection to a first side of a load (22) and a second connection to a second side (14) of the load (22),

coupling a voltage sensor to the first side of a dc source (26),

measuring a first parameter of the electrical system between a first Kelvin connection and a second Kelvin connection to the electrical system (column 5 lines 26-27);

measuring a second parameter of the electrical system between the voltage sensor and the second Kelvin connection to the electrical system (column 5 lines 28-30); and

a processor configured to determine cable resistance of wiring of the electrical system between the second Kelvin connection and the first Kelvin connection as a function of the first parameter and the second parameter (column 5 lines 40-43). Rhein does not disclose a battery.

Bertness discloses an electrical battery tester (Fig. 1) wherein first and second Kelvin connectors (36A, 36B) are coupled to first and second sides of the battery (18) and a load (14), including a voltage sensor and a shunt resistance/current sensor (26). It would have been

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obvious to one of ordinary skill in the art at the time the invention was made to include a battery into Rhein as taught by Bertness for the purpose of providing a reliable cable testing apparatus suitable for use in vehicles in order to prevent damage to vehicle electrical systems.

Regarding claims 19 and 37, Rhein disclose providing multiple circuits for providing multiple parameters sensed as a function of other parameters (column 5 lines 34-45).

Regarding claims 20, 21, 38 and 39, Rhein discloses the first and second parameters are dynamic and measured in response to a forcing function (column 4 lines 51-61).

Regarding claims 22, 23, 40 and 41, Rhein discloses the forcing function comprises an active forcing function and wherein the forcing function comprises passive forcing function (column 4 lines 51-67).

Regarding claim 24, Rhein discloses including Kelvin connectors to the electrical system (column 5 line 15).

Regarding claims 27, 28, 42 and 43, Rhein discloses determining electrical resistance in accordance to the equation as claimed (column 5 lines 15-18) and applying a forcing function to the C and D points (Fig. 1, points 14 and 16).

Regarding claims 30-32 and 45-47, Rhein discloses an output configured to provide an output/ an output to an operator/ an output to electrical circuitry related to the cable resistance of the wiring (column 5 lines 55-67, column 6 lines 1-3).

Regarding claims 33 and 48, Rhein discloses a pass/fail output (column 6 lines 1-3).

Regarding claims 34 and 49, Rhein discloses output is indicative of a voltage drop for a particular current through the electrical system (column 5 lines 55-67).

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Regarding claims 29 and 44, Rhein does not disclose measurements indicative of a cold cracking amp measurement. Bertness discloses measurements indicative of a cold cracking amp measurement (column 6 lines 32-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include measurements indicative of a cold cracking amp measurement as taught by Bertness into Rhein for the purpose of providing a more accurate battery testing means.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Teresinski whose telephone number is (571) 272-2235. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
JT

September 18, 2005

V. Nguyen
9/19/2005
VINCENT Q. NGUYEN
PRIMARY EXAMINER